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## THE BIRDS OF GREENWOOD LAKE AND VICINITY (NEW JERSEY AND NEW YORK)

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Greenwood Lake, one of the most popular and most visited summer and winter resorts of the vacationist, fisherman and naturalist of New York City and the surrounding suburbs, being distant about two hours' journey from the metropolis, is, without doubt, the finest body of water in nothern New Jersey and southern New York. This lake is about six hundred and twenty feet above sea level, and is approximately seven miles long and varies in width from three-quarters to one mile. About half of the lake is located in the State of Jersey and the other half in the State of New York.

The country bordering this magnificent body of water is of a very rugged nature and amply satisfies every desire of the ornithologist and oologist who may care to roam about its precincts. To the west the Bearfort and Bellvale Hills rear themselves to a commanding height of about seven hundred feet and to the east the Sterling Hills extend nearly the whole length of the lake. To the north, about two miles away, Mount Peter, the highest elevation in the vicinity, is perhaps the most visited spot of the whole section, and at the northeast Bear Rock, whose elevation is about 1200 feet, is likewise a favorite climb of nearly every able-bodied visitor of this section.

At the southern end of the lake, Belcher Creek and the marshy section on either bank affords every opportunity to the student to observe many of the Anseres, Herodiones, Pygopodes, as well as the Limicolae which visit this inland lake.

About a mile up along the eastern bank the dam and overflow of the lake empties its surplus water into the Wanaque Creek, whose valley is, indeed, the Mecca of every bird student as far south as the Hewitt Station. To the west of the lake, about two miles above the southern end, a small body of water, known as Surprise lake, is nestled in the Bearforts some four hundred feet above the surface of the main lake and this also is an excellent spot for the bird student.

Following the eastern bank from the dam, the principal points of interest to the ornithologist are: The shallows just above the Ice House, Storms' Island, Hickory Point and Finnigan's Cove, Echo Rock, Chapel Island and the long cove at the extreme northern end of the lake, to the east of the Village of

Greenwood Lake, N. Y. On the west bank south from Greenwood Lake Village, Deacon's Point is the first point of interest. Thence follows Furnace Cove, the trail to Surprise Lake, and Belcher Creek and the adjacent marshes at the extreme southern end.

The writer, during the past fifteen years, has spent many days roaming about and paddling during the summer and skating during the winter on the surface of this lake and has secured an approximately correct list of the winter and summer residents, vernal and autumnal migrants, and visitants, both rare, casual and regular, as will be indicated by the appended list, which also bears numerous notes regarding each species mentioned. And for the purpose of making this list of the most value to the resident or visitor of this section at any time of the year, the writer, during the years 1916 and 1917, spent from two to three days each week during every month of those two years in making observations on and about the lake, therefore, it is quite fair to assume that most of the conclusions that he has arrived at may be accepted as indicative of the prevailing conditions of bird-life in this section.

Before proceeding with this list of birds of this section, the naturalist visitor will in all probability be interested in some of the other forms of natural life prevailing in this locality and, for their benefit, a short resume is included.

Of the Amphibians and Reptiles, the writer has located from time to time specimens of the Spotted Salamander (*Ambystoma punctatum*), Red-backed Salamander (*Piethodon erythronotus*), Sticky Salamander (*Piethodon glutinosus*), Long-tailed Salamander (*Speierpes longicauda*), Red Salamander (*Speierpes ruber*), Dusky Salamander (*Desmognathus fusca*), Newt (*Dermictylus viridescens*), Toad (*Bufo americanus*), Swamp Tree Toad (*Pseudacris triseriatus*), Cricket Toad (*Acris gryllus crepitans*), Pickering's Tree Toad (*Hyla pickeringii*), Common Tree Toad (*Hyla versicolor*), Bull Frog (*Rana catesbeiana*), Green Frog (*Rana clamata*), and Wood Frog (*Rana sylvatica*), Water Snake (*Natrix sipedon*), Red-bellied Snake (*Storeria occipito-maculata*), DeKay's Brown Snake (*Storearia dekayi*), Ring-necked Snake (*Diadophis punctatus*), Black Snake (*Crotalus constrictor*), Garter Snake (*Thamnophis sirtalis*), Hog Nose Snake (*Heterodon platyrhinos*), Copper Head Snake (*Agkistrodon contortrix*) and Rattle Snake (*Crotalus horridus*), Snapping Turtle (*Chelydra serpentina*), Painted Terrapin (*Chry-*

*semys picta*) and Muhlenbarg's Terrapin (*Clemmys muhlenbergii*), Wood Tortoise (*Clemmys insculpta*), Spotted Terrapin (*Clemmys guttata*) and Box Tortoise (*Terrapene carolina*).

Of the Lepidoptera, Diptera, Hemitera, Hymenoptera, Odonata and Orthoptera there are many representatives and the field offers many opportunities to the entomologist throughout the section. Likewise the Mammalia and other forms of Vertebrata and Invertebrata. To the geologist and Indian relic hunter this section is rich in finds to all alike.

*Colymbus holboelli*—HOLBOELL'S GREBE.

One male was observed on November 25, 1918, swimming and diving on the surface of the lake near Pine Island during the early morning. This is the only record that I have been able to find of this species on this lake, although it is quite possible similar occurrences may have been made by this species.

*Colymbus auritus*—HORNED GREBE.

A regular spring and fall migrant. First observed on this lake on April 14, 1906, and the latest record for any year was made on October 12, 1914. A male and female were observed on August 10, 1912, which is the earliest autumnal record made. These birds are well named by the natives, whose vernacular for them is Dipper Ducks. In every instance they would never let me approach nearer than seventy-five feet but that they would submerge and re-appear some two or three hundred feet off.

*Tacbybaptus podiceps*—PIED-BILLED GREBE.

A regular spring and autumn migrant. Occasional summer resident. They appear about April 10 in the spring and are last seen about October 5 in the fall. Never more than about a total of fifteen birds are observed each spring and fall. Two nests were located by the writer in the marshes near Belcher Creek, one June 5, 1916, with two fresh eggs, and another on July 1, 1917, with a complete set of seven eggs, well incubated.

*Gavia immer*—LOON.

A rare visitant. One male was observed by the writer on April 2, 1914, swimming on the lake near Finigan's Cove. This constitutes all that I can find for this locality, although a resident of Hewitt advises me he shot one some years ago and bore out the statement by producing the bird stuffed. This gentleman claims he secured this bird near Pine Island on one of his duck-shooting excursions.

*Larus argentatus*—HERRING GULL.

A common spring migrant, but rare in the autumn. Occasional during the winter when the lake is free of ice. Only one autumnal date (October 3, 1914) has been secured.

*Hydrochelidon nigra surinamensis*—BLACK TERN.

A dead bird was picked up by the writer on the bank of Belcher Creek on June 8, 1916. Apparently a straggler.

*Mergus americanus*—MERCANSER.

An occasional winter visitant. Observed January 18, 1903, at Chapel Island, and on February 12, 1914, at Belcher Creek.

*Anas platyrhynchos*—MALLARD.

An irregular visitant. Observed on October 16, 1906, at Sterling Forest during the early morning, one male and two females.

*Anas rubripes*—RED-LEGGED BLACK DUCK.

Regular migrant. Two specimens examined by writer from a lot of six shot by Cleveland Cook of Haskell, N. J., on November 20, 1906, which were secured on Belcher Creek. One was found fast in a muskrat trap along this creek by the writer on March 10, 1912, which, after being released, made off towards the northern end of the lake.

*Anas rubripes tristis*—BLACK DUCK.

Abundant migrant. Earliest fall date secured was September 30, 1911, and latest spring date April 12, 1908.

*Nettion carolinensis*—GREEN-WINGED TEAL.

Migrant and occasional winter resident. A few are observed each migration. Two winter dates secured, one December 28, 1904, and one February 6, 1916.

*Querquedula discors*—BLUE-WINGED TEAL.

Migrant and occasional winter resident. Its status is practically the same as the preceding species. Observed during the winter on December 15, 1910.

*Aix sponsa*—WOOD DUCK.

Formerly a common migrant and occasional resident, but of late years is only rarely met with. Last recorded for the vicinity was on April 13, 1916, a male and a female.

*Marila marila*—GREATER SCAUP DUCK.

A rare visitant. One examined among a lot of Black Ducks shot on November 25, 1910, near Finigan's Cove.

*Clangula clangula americana*—GOLDEN-EYE.

Winter visitant. Found by the writer off Deacon's Point on December 2, 1902.

*Branta canadensis*—CANADA GOOSE.

Regular migrant. Observed every year both in large and small flocks from October 1 to 15 in the fall and from March 10 to April 15.

*Botaurus lentiginosus*—BITTERN.

An irregular migrant and an occasional breeder. A pair was observed near Belcher Creek on May 30, 1916, and I believe they must have nested here this year, although a careful search revealed nothing that would indicate a nest.

*Ixobrychus exilis*—LEAST BITTERN.

An occasional summer resident. Found on Belcher Creek on June 14, 1914, and again on July 28, 1916. These are only dates secured by the writer, but it is quite possible they breed here each year.

*Ardea herodias*—GREAT BLUE HERON.

A regular migrant. Earliest date in spring secured was April 2, 1906, and the latest fall date October 6, 1913. Observed at Surprise Lake during 1908 and 1911, and in Belcher Creek marshes nearly every year since 1904.

*Eutorides virescens*—GREEN HERON.

A regular summer resident. Nests are found each year in Belcher Creek marshes. Arrives about April 15 and remains until September 30.

*Nycticorax nycticorax naevius*—BLACK-CROWNED NIGHT HERON.

Rather common resident. Most generally seen in evening when flying about overhead and uttering their peculiar call. No record of their nesting about this lake has come to my attention.

*Rallus elegans*—KING RAIL.

An occasional visitant. Observed on Belcher Creek on May 27, 1916. Only record.

*Rallus crepitans*—CLAPPER RAIL.

One specimen which is claimed to have been secured on Belcher Creek was examined by the writer during 1914 in the possession of C. McKinnon of Ringwood. It is very doubtful that this was seured here as this is many miles above their usual range in the State of New Jersey.

*Rallus virginianus*—VIRGINIA RAIL.

Common summer resident. Two nests have been located by the writer along Belcher Creek, one on June 24, 1910, and one on May 31, 1913. Both had sets of nine eggs well incubated.

*Gallinula galeata*—FLORIDA GALLINULE.

One male found floating on the surface of Belcher Creek on July 2, 1916, in a bad state of decomposition. Only record.

*Philohela minor*—WOODCOCK.

Summer resident. Nests are found each year on Belcher Creek marshes. Appear in this vicinity about April 1 and leave about November 25.

*Gallinago delicata*—WILSON'S SNIPE.

A regular migrant. Appear in the spring about April 10 and pass to the south between November 5 and 20.

*Actitis macularia*—SPOTTED SANDPIPER.

Common summer resident. Nests are found nearly every year. Arrive about April 25 and depart about September 30.

*Oxyechus vociferus*—KILLDEER.

Rather common migrant and occasional summer resident. One nest with eggs found on a farm near Hewitt on May 2, 1912. Only nest found in this vicinity. Rarely ever seen in companies of more than two or three at one time.

*Colinus virginianus*—BOB-WHITE.

Permanent resident on all sides of the lake. No nests have been found by the writer in this vicinity, but, as the birds are present during the breeding season, it is quite certain that they breed here.

*Bonasa umbellus*—RUFFED GROUSE.

Permanent resident, mostly in the heavily wooded hills adjacent to the lake, both in New Jersey and New York. Two nests have been found, one near Surprise Lake, on May 28, 1914, and another along the Wanaque River, just above Hewitt, under an old rail fence, on June 2, 1917. Both of these nests had sets of ten eggs in them and both nearly ready to hatch.

*Phasianus colchicus*—RING-NECKED PHEASANT.

A rather common permanent resident about the lake. Usually observed in small roving flocks of three or four, and more often, a single male or female is observed.

*Zenaidura macroura carolinensis*—MOURNING DOVE.

A common summer resident. While not as plentiful as a decade ago, still many can be observed flying about, usually in pairs, throughout the summer season. They usually arrive in March and April and remain until the middle of November.

*Cathartes aura septentrionalis*—TURKEY VULTURE.

An occasional visitant. One observed at Hewitt on May 7, 1912, feeding on some offal from a local butcher, who cast some small pieces of lamb on a garbage disposal. I came upon this bird unexpectedly and obtained a favorable chance to positively identify it before it made off.

*Circus hudsonius*—MARSH HAWK.

Common permanent resident. More usually met with during the warmer months than during the winter months than during the winter, but a few may be found even on the coldest days of each year. Belcher Swamp is a favorable place for this species.

*Accipiter velox*—SHARP-SHINNED HAWK.

Rather common throughout the year, but most often met with during the vernal and autumnal migrations. No record of it breeding here, save on May 3, 1909, the writer observed a pair feeding three young about two weeks old. As these young were still in the downy stage it is very possible that they were hatched in the immediate vicinity.

*Accipiter cooperi*—COOPER'S HAWK.

A common migrant, occasional summer resident and also a rare winter visitant. Have no record of it breeding in this vicinity. About nine miles to the southwest, at Echo Lake, a nest with three eggs was found on April 10, 1908.

*Buteo borealis*—RED-TAILED HAWK.

An occasional winter visitant and rather common migrant. Observed at Finigan's Cove on December 3, 1913, and at Belcher Creek on February 12, 1915.

*Buteo lineatus*—RED-SHOULDERED HAWK.

Rather common resident. Writer examined one shot near Brown's Hotel on April 16, 1914, a full grown male. Others observed at various points about the lake over nearly all the months of the year.

*Buteo platypterus*—BROAD-WINGED HAWK.

Occasional summer resident. Rather common migrant. No record of breeding here.

*Archibuteo lagopus sanctijohannis*—ROUGH-LEGGED HAWK.

A regular winter visitant. Occasional during the migrations.

*Haliaeetus leucocephalus*—BALD EAGLE.

Occasional about this lake. One male observed on June 18, 1906, near Deacon's Bend and another at Sterling Forest on October 20, 1910.

*Falco peregrinus anatum*—DUCK HAWK.

Transient visitant. Observed in Belcher Creek Swamps on November 3, 1907, and at Greenwood Lake, N. Y., on February 6, 1910.

*Falco sparverius*—SPARROW HAWK.

Common permanent resident. Nests have been found each year since 1904 on different points about the lake, usually in deserted Flicker or Red-headed Woodpecker cavities.

*Falco columbarius*—PIGEON HAWK.

Common transient. May be seen about the lake at frequent intervals. No record of it breeding here, and it is seldom seen during the breeding season.

*Pandion haliaetus carolinensis*—OSPREY.

An abundant migrant. Appears locally about April 20, and individuals are observed as late as October 10. One nest was located with a set of three eggs on May 30, 1904, on the east shore of this lake near Finigan's Cove.

*Asio wilsonianus*—LONG-EARED OWL.

Occasional visitant. Observed by the writer near Sterling Forest on November 13, 1914, and another specimen was found dead along the Wanaque River near Awosting, apparently having been shot by a hunter and left, November 25, 1916.

*Strix varia*—BARRED OWL.

A rather common permanent resident. One nest was located on April 3, 1910, at Sterling Forest, which constituted my only breeding record.

*Otus asio*—SCREECH OWL.

A common permanent resident and a regular breeder about this lake. Both phases of plumage can be found each year.

*Bubo virginianus*—GREAT HORNED OWL.

A rare visitant. Observed twice by the writer. First on May 3, 1912, and second on November 28, 1917, both records being made near Surprise Lake.

*Coccyzus americanus*—YELLOW-BILLED CUCKOO.

Common summer resident. Arrives May 5 to 20 and departs October 1 to 10. Breeds at many points about the lake.

*Coccyzus erythrophthalmus*—BLACK-BILLED CUCKOO.

Common summer resident. Arrives May 15 to June 4, slightly later than the preceding species, and departs usually ten days earlier in the autumn. Nests are occasionally found, but not as often as the Yellow-billed Cuckoo.

*Ceryle alcyon*—BELTED KINGFISHER.

Common summer resident, and breeder. Prior to June 2, 1911, no nests were located here, but since that date every year has been productive of one or two, and even three, as in the case of 1917. Are observed as late as November 30 here, and occasionally as early as February 22.

*Dryobates villosus*—HAIRY WOODPECKER.

Permanent resident. To be found in the heavily wooded sections throughout the year. Two nests with eggs found on May 16, 1907, at Ringwood, three miles to the east of this lake, which constitutes the only record of the vicinity made by the writer. It is quite possible, however, that closer observation would reveal nests each season as the birds are present throughout the breeding season each year.

*Dryobates pubescens medianus*—DOWNY WOODPECKER.

Common permanent resident, and also an abundant breeder. It is more abundant during the colder months than during the other portions of the year.

*Sphyrapicus varius*—YELLOW-BELLIED SAPSUCKER.

Common visitant throughout the year. Never resident.  
*Melanerpes erythrocephalus*—RED-HEADED WOODPECKER.

Rather common permanent resident. Never abundant, but some may be observed on each stroll through the adjacent woods throughout the year. Nests are found occasionally in secluded spots and the adults and young can be observed wandering about after the breeding season almost every year.

*Colaptes auratus luteus*—FLICKER.

Common summer resident. Also fairly abundant some winters. In 1907, 1910 and 1916 they were to be found almost daily throughout the colder months, but during the other years only a few scattered individuals were observed during December and February and March. Breeds and nests in every available dead stump throughout the section.

*Antrostomus vociferus*—WHIPPOORWILL.

Common summer resident. Arrives May 7 to 20 and departs from September 10 to 30. Breeds and nests at nearly all the more sparsely settled sections about the lake. It is particularly abundant along the Wanaque River between the dam and Hewitt and can be observed every night during the spring and early summer on all sides.

*Chordeiles virginianus*—NIGHTHAWK.

Common summer resident. Arrives May 15 to 30 and departs September 9 to October 1. Nests are occasionally found, but not as often as the preceding species. This species is more often seen during the day than the preceding.

*Chactura pelagica*—CHIMNEY SWIFT.

Common summer resident. Arrives April 26 to May 15 and departs September 15 to October 20. Nests abundantly throughout the section in unused chimneys of nearly all the houses.

*Archilochus colubris*—RUBY-THROATED HUMMINGBIRD.

Common summer resident. Arrives May 7 to 15 and departs September 4 to 15. Nests are occasionally found but are usually very difficult to find because of the seclusive habits of this species.

*Tyrannus tyrannus*—KINGBIRD.

Common summer resident. Arrives May 6 to 24 and departs September 2 to October 1. Breeds and nests throughout the vicinity of the lake.

*Myiarchus crinitus*—CRESTED FLYCATCHER.

Common summer resident. Arrives May 6 to 30 and departs August 20 to September 15. Common breeder and home builder throughout the section.

*Sayornis phaebe*—PHOEBE.

Common summer resident. Arrives March 16 to 25 and departs September 28 to October 24. Nests under bridges and in open sheds throughout the section.

*Nuttallornis borealis*—OLIVE-SIDED FLYCATCHER.

A rare visitant. One was observed by the writer in the Wanaque River Valley on September 6, 1917. This bird was perched in a river birch just off the railroad right-of-way and close enough at hand to positively identify it.

*Myiochanes virens*—WOOD PEWEE.

Common summer resident. Arrives May 6 to 26 and departs September 24 to October 5. Common breeder and home builder throughout the section.

*Empidonax flaviventris*—YELLOW-BELLIED FLYCATCHER.

Occasional visitant. Observed May 19, 1914, at Hewitt, N. J., and on September 6, 1917, at Warwick Woodlands, N. Y.

*Empidonax virescens*—ACADIAN FLYCATCHER.

Occasional visitant. Observed at Surprise Lake, May 9, 1916, and at Finigan's Cove on May 12, 1917.

*Empidonax traillii alnorum*—ALDER FLYCATCHER.

Occasional summer visitant. June 18, 1909, at Mount Peter, N. Y., one was found dead. Another was observed near the dam at Greenwood Lake Glens, N. J., on July 2, 1917.

*Empidonax minimus*—LEAST FLYCATCHER.

Common summer resident. More plentiful some years than in others, but may be found quite abundantly every year. Arrives April 28 to May 5 and departs September 19 to October 1. Nests in many places about the lake. This bird shows a distinct preference to the wild cherry saplings for nesting sites and of about fifty nests found by the writer during the past fifteen years in this vicinity, sixty per cent were in these trees.

*Octocoris alpestris*—HORNED LARK.

Occasional autumn and winter visitant. Observed along the Jersey Road on the west side of the lake, both in New Jersey and New York, feeding usually on the manure of the horses which travel this road continually.

*Cyanocitta cristata*—BLUE JAY.

Common permanent resident. Breeds and nests throughout the section. During the college days the first bird usually to greet the observer is the Blue Jay. I have found them even on days when the temperature was from five to ten degrees below zero just as plentiful as during the seasons of the year when they are naturally expected to be at the height of their abundance.

*Corvus brachyrhynchos*—CROW.

Common permanent resident. Breeds in all the more sparsely settled sections all about the lake. Nests have been located with eggs as early as April 10 and as late as June 15.

*Sturnus vulgaris*—EUROPEAN STARLING.

Common permanent resident. They first were recorded about this lake on June 18, 1908, and since that time have increased with surprising rapidity every year, plainly indicating this increased abundance. They nest in every conceivable place.

*Dolichonyx oryzivorus*—BOBOLINK.

Common summer resident. Arrives in early May and departs from September 15 to 30. Common breeder in all the open fields of the farms about the lake.

*Molothrus ater*—COWBIRD.

Common summer resident. Arrives March 15 to April 5 and departs October 15 to November 1. Their eggs have been found in nests of the Warbling Vireo, Yellow-throated Vireo, Yellow Warbler and Redstart.

*Agelaius phoeniceus*—RED-WINGED BLACKBIRD.

Common summer resident. Arrives March 15 to 30 and departs October 1 to 15. Nests are found each year in the reedy and swampy places about the lake.

*Sturnella magna*—MEADOWLARK.

Common permanent resident. Breeds and nests throughout the section in old fields and open meadows.

*Icterus spurius*—ORCHARD ORIOLE.

Common summer resident. Arrives about May 15 and departs September 10 to 15. Nests throughout the section in the larger orchards, which are seldom visited by the inhabitants.

*Icterus galbula*—BALTIMORE ORIOLE.

Common summer resident. Arrives May 4 to 10 and departs September 15 to October 1. Abundant nest builder throughout the section.

*Euphagus carolinus*—RUSTY BLACKBIRD.

Common migrant. Appears locally from March 15 to April 10 and from September 19 to October 1.

*Quiscalus quiscula*—PURPLE GRACKLE.

Common summer resident. Abundant nest builders wherever the conifers abound. Occasionally nests are found in unfrequented orchards.

*Quiscalus quiscula aeneus*—BRONZED GRACKLE.

Occasional migrant. One male found had been shot near the Ice Houses on the east bank of the lake on May 2, 1915.

*Passer domesticus*—ENGLISH SPARROW.

Common permanent resident.

*Pinicola enucleator leucura*—PINE GROSBEAK.

Rare winter visitant. Observed on December 28, 1916, along the Wanaque River near Awosting. There were six birds in this flock, two males and four females. Only record I have for the vicinity.

*Carpodacus purpureus*—PURPLE FINCH.

An abundant migrant, and occasional winter visitant. Arrives from the south in the spring about April 15 and returns in the fall about September 15. Observed at Beacon's Bend on December 8, 1917, and at Hewitt on December 15, 1917.

*Loxia curvirostra minor*—RED CROSSBILL.

Rare visitant. Observed at Sterling Forest on May 13, 1916.

*Acanthis linaria*—REDPOWELL.

Rare visitant. Observed twice about the lake. Once at Sterling Forest on December 28, 1917, and at the Brandon House on February 2, 1918.

*Astragalinus tristis*—GOLDFINCH.

Common permanent resident. Found nesting nearly every year in the open thickets and fruit trees at various points about the lake in both states. The earliest nest which the writer has found of this species was at Awosting on July 25, 1916. The major portion of the nests located were from the middle of August to September 5. During the colder months they rove about in small flocks and may be met with in many portions of this section.

*Spinus pinus*—PINE SISKIN.

Regular winter visitant, but never very abundant. Arrives from the

north about October 15 and has been seen last in the spring on April 30.  
*Plectrophenax nivalis*—SNOWFLAKE.

Irregular winter visitant. Only present during extreme cold snowy weather, when they are driven south by the scarcity of food in their chosen haunts. Observed February 2, 1910, at the Windemere Hotel, January 18, 1916, at Hewitt, and March 15, 1920, at Deacon's Point.

*Poecetes gramineus*—VESPER SPARROW.

Common summer resident. Arrives about March 20 and leaves us about October 15. Breeds every season in the open fields all about the lake.

*Passerculus sandwichensis savanna*—SAVANNA SPARROW.

Common visitant; irregular summer resident. Found nesting at Awosting on May 30, 1908. Only record. Arrives about April 1 and passes south about September 15.

*Ammodramus savannarum australis*—GRASSHOPPER SPARROW.

Common summer resident. Arrives about April 30 and departs October 1 to 10. Nests found regularly each year in the old fields.

*Zonotrichia leucophrys*—WHITE-CROWNED SPARROW.

Rare winter visitant. Most abundant in October and November and in April and May. Wherever the White-throats frequent one must look for this species.

*Zonotrichia albicollis*—WHITE-THROATED SPARROW.

Common winter visitant. Arrives about September 15 and departs about May 20.

*Spizella monticola*—TREE SPARROW.

Common winter resident. Arrives from the north about October 15 and leaves again about April 30. This is probably the most frequently met with bird during the winter in this section.

*Spizella pusilla*—CHIPPING SPARROW.

Common summer resident. Appears about March 30 and leaves late in October. Nests in almost every kind of small tree not over fifteen feet up. Particularly prefer the low conifers for nesting sites.

*Spizella pusilla*—FIELD SPARROW.

Common summer resident. Arrives about March 10 and departs about November 1. Nests are found each year in the old fields all about the section.

*Junco hyemalis*—SLATE-COLORED JUNCO.

Common winter resident. Arrives about October 10 and leaves around May 5. Wherever the Tree and Song Sparrows are present one is almost sure to find this species with them.

*Melospiza melodia*—SONG SPARROW.

Common permanent resident. Abundant breeder all about the lake.  
*Melospiza georgiana*—SWAMP SPARROW.

Common summer resident. Not as abundant as the *Melospiza melodia*, but nests are found regularly in the swamps bordering on Belcher Creek and at the northern end of the lake.

*Passerella iliaca*—FOX SPARROW.

Common migrant and occasional winter visitant. Arrives from the north about October 1 and passes north again in the spring about March 15. Observed at Surprise Lake on December 15, 1910, and at Hewitt along the Wanaque on February 20, 1918.

*Pipilo erythrophthalmus*—TOWHEE.

Common summer resident. Arrives about April 1 and departs about October 15. Nests regularly each year all about the vicinity.

*Zamelodia ludoviciana*—ROSE-BREASTED GROSBEAK.

Common summer resident. Arrives about May 5 and departs October 1 to 10. Nests quite regularly at various points about the lake.

*Passerina cyanea*—INDIGO BUNTING.

Common summer resident. Arrives about May 8 and leaves September 25 to 30. Nests regularly each year in the low thickets near the lakeside.

*Piranga erythromelas*—SCARLET TANAGER.

Common summer resident. Arrives May 5 and departs October 5. Breeds throughout the district. Prefer the oak trees for nesting sites.

*Progne subis*—PURPLE MARTIN.

Occasional visitant. Observed at Brown's Hotel on May 15, 1908, and at Greenwood Lake, N. Y., September 4, 1917.

*Petrochelidon lunifrons*—CLIFF SWALLOW.

Common summer resident. Arrives April 30 and leaves August 25 to September 1. Nests are found quite regularly on the barns in the district and on the ice houses near Sterling Forest.

*Hirundo erythrogaster*—BARN SWALLOW.

Common summer resident. Arrives about April 10 and leaves early in September. Common breeder throughout district.

*Iridoprocne bicolor*—TREE SWALLOW.

Common summer resident. Arrives April 5 and leaves about October 25. They doubtlessly nest here as they are present throughout the nesting season, but the writer has never found a nest of this species near the lake.

*Riparia riparia*—BANK SWALLOW.

Common summer resident. Arrives April 10 and departs September 5 to 10. Nests regularly wherever there are sand banks in the vicinity.

*Stelgidopteryx serripennis*—ROUGH-WINGED SWALLOW.

Occasional summer visitant. Two pair have been observed quite regularly for a number of years past near the dam of the lake at Greenwood Lake.

*Bombycilla garrula*—BOHEMIAN WAXWING.

Rare winter visitant. Observed but once. Five were positively identified on January 3, 1919, near Hewitt Station on the Erie Railroad in a wild cherry sapling, where they were perched for about ten minutes.

*Bombycilla cedrorum*—CEDAR WAXWING.

Common summer resident. Occasional in the winter. Nests quite regularly in the adjacent orchards.

*Lanius borealis*—NORTHERN SHRIKE.

Occasional winter visitant. Observed at Brown's, Storm Island, and at Greenwood Lake, N. Y.

*Lanius ludovicianus migrans*—MIGRANT SHRIKE.

Rare migrant. Observed August 20, 1908, at Sterling Forest, and on September 15, 1917, at Belcher Creek. Only single birds in each case.

*Vireosylva olivacea*—RED-EYED VIREO.

Common summer resident. Arrives May 5 and departs September

36. Nests regularly each year in the wooded sections.

*Vireosylva gilva*—WARBLING VIREO.

Common summer resident. Arrives about May 5 and leaves about September 20. Nests are found occasionally, but not as regularly as the preceding species.

*Lanivireo flavifrons*—YELLOW-THROATED VIREO.

Common summer resident. Must certainly nest here, but the writer has never found a nest. Arrives April 30 and leaves about September 10. *Lanivireo solitarius*—BLUE-HEADED VIREO.

Common summer resident. Nests occasionally in the deeper woods adjacent on the Bellvale and Bearfort hills. But on the east side no nests have been found and but few birds frequent there. Arrives about May 25 and leaves late in September.

*Virco griseus*—WHITE-EYED VIREO.

Common summer resident. Arrives May 1 and leaves about September 25. Nests are found quite regularly in the lower growths of the adjacent woodlands.

*Mniotilla varia*—BLACK AND WHITE WARBLER.

Common summer resident. Arrives about April 25 and departs about October 1. Nests are found occasionally in the heavily wooded sections about the lake. In every case these nests were found on the ground at the base of a tree, except in one case, in May, 1910, when the nest was in the side of a decayed tree trunk about a foot from the ground.

*Helmitheros vermivorus*—WORM-EATING WARBLER.

Occasional summer resident. Have no record of its nesting here, but believe they do, as pairs have been noted during the breeding season in the Bearforts on three different occasions. Arrives usually about May 5 and leaves September 5 to 8.

*Vermivora pinus*—BLUE-WINGED WARBLER.

Common summer resident. Arrives May 5 and departs about August 25. Have found it nesting on three occasions in the lower portions of the Bellvale Mountains in the low bushes and on the ground at the foot or some bushes.

*Vermivora chrysoptera*—GOLDEN-WINGED WARBLER.

Rare transient visitant. Only observed by the writer during the migrations and usually only one or two individuals. Passes north May 7 to 16 and again southward about September 1.

*Vermivora rubricapilla*—NASHVILLE WARBLER.

Rather common migrant. Passes north about May 10 and return from the north again in later September. Usually most abundant in overgrown cut-offs.

*Vermivora peregrina*—TENNESSEE WARBLER.

Rare migrant. Spring migration May 15 to 20 and fall migration about September 10 and 15.

*Compsothlypis americana usneae*—NORTHERN PARULA WARBLER.

Very common during migrations. Spring, May 10 to 20, and fall, late September. Occasionally met with in June and July, so it is fair to assume they breed in the vicinity, but no nests have been located.

*Dendroica tigrina*—CAPE MAY WARBLER.

Rare migrant. Observed at Deacon's Point May 20, 1916, and at Sterling Forest May 15, 1920.

*Dendroica aestiva*—YELLOW WARBLER.

Common summer resident. Arrives about May 4 and leaves about September 30. This is probably the most common warbler of the section. Nests regularly each year all about the lake.

*Dendroica caerulescens*—BLACK-THROATED BLUE WARBLER.

Common migrant. Spring migration May 5 to 20 and fall migration September 1 to October 1. Occasionally met with during middle of June in the Bearforts and Bellvales.

*Dendroica coronata*—MYRTLE WARBLER.

Common migrant. May 1 to 20 in the spring and October 10 to 25 in the fall. Have been seen as early as April 9 and as late as November 5.

*Dendroica magnolia*—MAGNOLIA WARBLER.

Common migrant. Arrives May 10 to 20 and passes south August 20 to 31. Have observed them as late as June 10 in the Bearforts.

*Dendroica pensylvanica*—CHESTNUT-SIDED WARBLER.

Common summer resident. Nest regularly each year in this section. Arrives about May 8 and leaves about September 10.

*Dendroica castanea*—BAY-BREASTED WARBLER.

Rather rare migrant. When present it passes north about May 15 and south about September 1 to 5. Observed in 1914, 1917 and 1921. All records were made in the Bellvale hills.

*Dendroica striata*—BLACK-POLL WARBLER.

Common migrant. Spring, May 15 to June 1, and fall, September 5 to 30. Can be looked for all about the lake during these periods.

*Dendroica fusca*—BLACKBURNIAN WARBLER.

Rather common migrant. Arrives about May 6 to 15 and passes south about September 5. The valley of the Wanaque between the Glens and Hewitt is probably the best place to look for this species in this section, although a number have been observed on both sides of the lake in the heavily wooded sections.

*Dendroica virens*—BLACK-THROATED GREEN WARBLER.

Common migrant. Arrives from the south about May 5 and passes south again about September 15 to 30. Large flocks of this species are observed all about the lake during each migration and they are most often observed in the uppermost branches of the deciduous growths.

*Dendroica vigorsi*—PINE WARBLER.

Rather rare migrant. Spring migration April 5 to 15 and fall migration October 1 to 5.

*Dendroica palmarum*—PALM WARBLER.

Rare migrant. Only observed twice: May 6, 1910, at Awosting along the Wanaque, and on May 7, 1918, at Sterling Forest.

*Dendroica palmarum hypochrysea*—YELLOW PALM WARBLER.

Common migrant. One of the earliest warblers to appear in the section. Arrives April 15 and passes south about October 15.

*Dendroica discolor*—PRAIRIE WARBLER.

Rather rare migrant. A few individuals are observed each in the spring migration, May 5 to 10.

*Sciurus aurocapillus*—OVEN-BIRD.

Common summer resident. Arrives about May 1 and departs in early October. Nests regularly, but are very hard to find.

*Scirurus noveboracensis*—WATER-THRUSH.

Common migrant. Arrives in the spring about May 1 and passes south about September 1 to 15. The valley of the Wanaque is an excellent section to observe this species during the migrations.

*Seiurus motacilla*—LOUISIANA WATER-THRUSH.

Common summer resident. Arrives about April 25 and departs in late August. Must surely nest here, but the writer has never located its home.

*Oporornis formosus*—KENTUCKY WARBLER.

Rare migrant. Only observed three times in the section: May 10, 1914, at Deacon's Point, Sterling Forest May 5, 1918, and Hewitt's May 10, 1920.

*Oporornis agilis*—CONNECTICUT WARBLER.

Rare migrant. Only observed once, May 9, 1917, at Sterling Forest.

*Oporornis philadelphica*—MOURNING WARBLER.

Rare migrant. Observed but twice, May 19, 1920, at Awosting, and May 16, 1921, at Greenwood Lake Glens.

*Geothlypis trichas*—MARYLAND YELLOW-THROAT.

Common summer resident. Arrives May 1 and departs in early October. Nests abundantly throughout the section in the swampy areas.

*Icteria virens*—YELLOW-BREASTED CHAT.

Common summer resident. Arrives about May 4 and departs in early September. Nests regularly each year in many parts of this district.

*Wilsonia citrina*—HOODED WARBLER.

Common summer resident. Arrives about May 5 and departs in early September. Nests are frequently found in secluded spots where there is little chance of their being molested by mankind.

*Wilsonia pusilla*—WILSON WARBLER.

Common migrant. Arrives about May 15 and passes south in early September.

*Wilsonia canadensis*—CANADIAN WARBLER.

Common migrant. Spring migration takes place May 8 to 20 and fall migration early September. Individuals are occasionally met with in the spring up to June 10.

*Setophaga ruticilla*—REDSTART.

Common summer resident. Arrives about May 1 and leaves in late September and early October. Nests rather abundantly throughout the section.

*Anthus rubescens*—PIPET.

Common migrant. Arrives from the south April 1 to 20 and passes south in late October.

*Dumetella carolinensis*—CATBIRD.

Common summer resident. Abundant breeder throughout section. Arrives in the spring in late April and departs in early October.

*Toxostoma rufum*—BROWN THRASHER.

Common summer resident. Arrives about April 5 to 10 and departs in late October. Nests regularly each year throughout the section.

*Troglodytes aëdon*—HOUSE WREN.

Common summer resident. Arrives about April 27 and departs in late September. Nests abundantly throughout the district.

*Nannus hiemalis*—WINTER WREN.

Winter resident. Rather eccentric in its occurrence. Some years only a few individuals are observed, whereas during others they are quite numerous.

*Telmatodytes palustris*—LONG-BILLED MARSH WREN.

Common summer resident in Blecher Creek Swamp, but this is the only place they are to be found in this section with any regularity.

*Cistothorus stellaris*—SHORT-BILLED MARSH WREN.

Common summer resident in Belcher Creek Swamp and at other swampy areas in the section. More often met with than the preceding species.

*Certhia familiaris americana*—BROWN CREEPER.

Rather common winter resident and occasionally met with in the summer months. Observed during five successive summers in the Bell-vales from 1915 to 1919, records being made in late June and early July.

*Sitta carolinensis*—WHITE-BREASTED NUTHATCH.

Common permanent resident. More frequent in the fall and winter months. Must breed, but have no record of finding its nest in the section.

*Sitta canadensis*—RED-BREASTED NUTHATCH.

Occasional visitant. Observed quite regularly during the winter months and as late as June 3 in the spring.

*Penthestes atricapillus*—BLACK-CAPPED CHICKADEE.

Common permanent resident. More abundant in the fall and winter months than the other portions of the year. Two nests have been located, one near Surprise late in May, 1916, and one at Bear Rock on June 1, 1919.

*Regulus satrapa*—GOLDEN-CROWNED KINGLET.

Common migrant and rather common winter resident. Arrives from the north about October 1 and leaves in early April.

*Regulus calendula*—RUBY-CROWNED KINGLET.

Common migrant. Passes north in early May and south in October and early November.

*Hylocichla mustelina*—WOOD THRUSH.

Common summer resident. Arrives about May 1 and leaves in early October. Nests abundantly throughout the district.

*Hylocichla fuscescens*—WILSON THRUSH.

Common summer resident. Arrives in the spring in late April and leaves in early September. Nests quite frequently are found in the heavily wooded sections.

*Hylocichla aliciae*—GREY-CHEEKED THRUSH.

Common migrant. Spring, May 1 to 10, and fall, early October.

*Hylocichla ustulata swainsoni*—OLIVE-BACKED THRUSH.

Common migrant. Spring, May 5 to 15, and fall, early October.

*Hylocichla guttata pallasi*—HERMIT THRUSH.

Common migrant and occasional summer and winter resident. On May 27, 1910, a nest just completed was found in the Bearfort Hills west of Greenwood Lake, and on June 10 this nest contained four young about five days old.

*Planesticus migratorius*—ROBIN.

Common summer resident. Arrives early in March and leaves in late November. Abundant breeder throughout district.

*Sialia sialis*—BLUEBIRD.

Common permanent resident. Nests throughout section.

The migration notes in the foregoing list are based on a tabulation covering a period of sixteen years and the general averages are shown in each case.

## SOME IOWA OWL NOTES

BY FRED J. PIERCE, WINTHROP, IOWA

The Screech Owl is the commonest representative of the Owl family in this region, and is undoubtedly of extreme value to the farmer as a pest destroyer. He is seldom seen in the hours of the day, but at night makes his presence known by his wavering, mournful cry, which is pleasing music to the ear of a professed lover of nature. Why anyone should think this weird and gripping voice from the night disagreeable is hard to understand, yet many people do. Retiring in habit, this bird seems to have few objectionable qualities, and is, therefore, a neighbor to be encouraged, rather than one to be shunned.

Some time ago I described the effective work done by a Screech Owl in ridding our farm buildings of English Sparrows during the winter of 1919-20.\* During the past winter (1921-22) similar work was done by an industrious and not too timid Owl—perhaps the previous visitant.

This Screech Owl was first seen in the large mow of our barn, after a severe snowstorm in mid-December, and it visited it frequently thereafter. The Sparrows' numerous roosting-places in the haymow and nearby silo chute were no longer safe and, judging from the small size of our English Sparrow flock, the Owl's appetite for Sparrows was a very hearty one.

For several years the ladder rungs inside the silo chute have been a preferred reposing quarter of the Sparrows. When not molested a hundred or so would congregate there to spend the night. My father and I have often gone there after dark and killed numbers of them by climbing the steps and knocking them over with a club, while a lantern was held below to bewilder them with the light. It was fairly easy to dispatch the birds with a well directed blow. In former winters we have used these means to keep the Sparrow flock reduced, but the past winter the Screech Owl included the chute in his list of hunting grounds and the Sparrows were left little cover. A

\* The Screech Owl as a Sparrow trap. *Bird-Lore*, Nov.-Dec. 1920, p. 350.